

**DRAFT DOCUMENT OF ENVIRONMENTAL  
PROTECTION (DEP)**

**ACTIVITY:  
MINUTEMAN III MODIFICATION AND  
FUZE MODERNIZATION FLIGHT TESTS  
AND GROUND-BASED STRATEGIC  
DETERRENT (GBSD) FLIGHT TESTS**

**CONTROL NUMBER DRAFT DEP-22-SMDC-01.1**

**JUNE 2022**

**Effective Date TBD**

**US ARMY GARRISON-KWAJALEIN ATOLL  
IN THE  
REPUBLIC OF THE MARSHALL ISLANDS**

**PREPARED BY  
KFS, LLC  
HUNTSVILLE, ALABAMA**

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**DOCUMENT OF ENVIRONMENTAL PROTECTION**

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3 **DATE SUBMITTED:** June 2022

4 **DEP EFFECTIVE DATE:** August 2022

5 **DEP EXPIRES:** Five Years After Final Signature  
6

7 The Compact of Free Association between the Republic of the Marshall Islands (RMI) and the  
8 United States (US), as amended, at Section 161(a)(i) requires all US Government activities at  
9 US Army Garrison-Kwajalein Atoll (USAG-KA) (formerly US Army Kwajalein Atoll  
10 (USAKA)), where Ronald Reagan Ballistic Missile Defense Test Site (RTS) is a tenant  
11 organization, to conform to specific compliance requirements, coordination procedures, and  
12 environmental standards identified in the Environmental Standards and Procedures for United  
13 States Army Kwajalein Atoll Activities in the Republic of the Marshall Islands (UES, 16<sup>th</sup> ed.,  
14 2021). As specified in Section 2-2 of the UES 16<sup>th</sup> Edition, these standards also apply to all  
15 USAG-KA and RTS activities occurring elsewhere within the RMI, including the territorial  
16 waters of the RMI.

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**TECHNICAL DESCRIPTION OF ACTIVITY**

The activities described in this DEP are for conducting Minuteman III (MMIII) Intercontinental Ballistic Missile (ICBM) Modification and Fuze Modernization program and Ground Based Strategic Deterrent (GBSD) flight tests.

The UES requires renewal of Documents of Environmental Protection (DEPs) for continuing activities, and new DEPs for new activities. In 2005, the original Notice of Proposed Activity (NPA) and companion DEP (USAKA 2005) went into effect for the MMIII Modification Flight Tests at RTS. The UES requires renewal of DEPs for continuing activities, thus requiring a Notice of Continuing Activity (NCA) for the MMIII program. An NCA was issued for continuing MMIII activities on 29 September 2014 (USAKA 2015). Subsequently, a DEP for the continuing MMIII Modification Flight Tests, to include the Fuze Modernization program was finalized on September 14, 2017 (USAKA 2017; Appendix C). Upon issuance, the renewed DEP covered a five-year period (2018 – 2022). As described in the GBSD Test Program EA/OEA and in this DEP, the Department of Defense (DOD) is planning on transitioning from the MMIII program to the GBSD program over a period of 10 years. This 2022 DEP and companion NPA (Appendix A) for the MMIII Modification Flight Tests, Fuze Modernization, and GBSD flight tests will cover a five-year period (2022-2026). Therefore, a future GBSD DEP will be required to cover flight tests occurring after FY 2026.

The DOD is extending the life of the existing force of MMIII ICBMs and including a Fuze Modernization program using the same missile platform and infrastructure support. As a life-extension action, the MMIII weapon system will continue through year 2030 with up to four annual MMIII flight tests, and additionally up to four Fuze Modernization flight tests over a four-year period. Between fiscal year (FY) 2021 and FY 2029, there could be up to 33 Minuteman III test flights. All flight tests will launch from Vandenberg Space Force Base (VSFB), California, to the RTS in the RMI. Flight tests are necessary to ensure the safety, accuracy, and reliability of the MMIII and Fuze Modernization systems.

The ICBM Fuze Modernization program activities will include replacement of the existing MMIII Mark (Mk) 21 fuze to meet warfighter requirements and maintain current capability. Additionally, the ICBM Fuze Modernization program will address the associated Minuteman III weapon modifications, system testing, support equipment, data, training, and fielding efforts required to support and develop a new Mk 12A fuze capability to integrate with the new Mk 21 fuze and Mk 12A/W78 Life Extension Program.

The flight-testing activities for MMIII have not changed substantially over the years, with the exception of the removal of the requirement for land impacts in 2016, and neither the MMIII program nor the Fuze Modernization activities will induce significant changes. Environmental resource areas impacted by the continuing Minuteman III program and Fuze Modernization activity missions are discussed in the 2017 NCA (Appendix C). Requirements for notification and reporting in the 2017 NCA are consistent with those in the 2005 NPA. A new companion NPA for this DEP was completed because of new GBSD testing locations, including potential land impacts in the RMI (Appendix A). Monitoring procedures are addressed in this DEP.



1 The proposed GBSB Test Program involves the development and testing of a new ICBM  
2 weapon system that would eventually replace the aging MMIII weapon system. Implementation  
3 of the test program would include facility construction or modifications at Hill Air Force Base  
4 (HAFB), VSFB, and Dugway Proving Ground. In addition, GBSB flight test activities would be  
5 conducted from VSFB and include target impacts at USAG-KA sites in the RMI. Because  
6 deployment of the new GBSB weapon system cannot occur until it has been adequately tested  
7 and proven sufficiently mature for operational use, both GBSB and MMIII flight test activities  
8 and related operations would overlap at HAFB, VSFB, and USAG-KA. Such testing would  
9 overlap for up to 10 years or until decisions are made to remove the MMIII weapon system from  
10 active status. Between FY 2021 and FY 2029 there could be up to 33 Minuteman III test flights  
11 and up to 28 GBSB test flights, for a total of 61 test flight over a 9-year period.  
12

### 13 **LOCATION OF ACTIVITY**

14 In the RMI, proposed activities may occur at three locations: the Kwajalein Missile Impact  
15 Scoring System (KMISS) range located off the east reef near Gagan Islet, RTS, RMI; the reentry  
16 vehicle (RV) impact site at Illeginni Islet; and in the vicinity of Illeginni Islet. RTS is a tenant of  
17 USAG-KA at USAKA, the mid-atoll corridor and surrounding air and water areas at Kwajalein  
18 Atoll.  
19

### 20 **COMPLIANCE STATUS**

21 The Minuteman III Modification and Fuze Modernization program and GBSB flight testing  
22 activities at RTS are in compliance with the UES. The testing activities and potential effects on  
23 endangered and threatened species will be monitored by USAF (Defense Program) and RTS and  
24 reported to the Appropriate Agencies in accordance with this DEP to ensure continued  
25 compliance.  
26



## MILESTONE SCHEDULE (UES §2-17.3.6 (5))

Number	Requirement	Responsible Party	Due Date
<b>General Requirements and Limitations</b>			
1	Brief test personnel on Best Management Practices (BMPs) and requirements and the requirement to adhere to them during test activities. <b>(Section 1.3.e)</b>	Defense Program, USAG-KA, RTS, & USASMDC	Prior to test
2	Evacuate nonessential personnel within the Mid-Atoll Corridor and shelter critical personnel. <b>(Section 1.1.a)</b>	Defense Program, USAG-KA, & RTS	Prior to test
3	Publish Notices to Airmen (NOTAM) and Notices to Mariners (NOTMAR). <b>(Section 1.1.a &amp; 4.2.c)</b>	Defense Program, USAG-KA, & RTS	Prior to test
4	Equipment and materials shipped from the US to RTS shall be washed and inspected to ensure that it does not contain any insects, animals, plants, or seeds. <b>(Section 1.1.f)</b>	Defense Program	Prior to equipment transport to RTS
5	Equipment and materials returning to the US shall be washed and inspected to ensure that it does not contain any insects, animals, plants, or seeds. <b>(Section 1.1.g)</b>	Defense Program & RTS	Prior to equipment transport to US
6	If activity-specific hazardous materials are imported, submit a Hazardous Materials Procedure. <b>(Section 1.4.b)</b>	Defense Program, USAG-KA, & RTS	Within 15 day of import or before use
7	Conduct overflights of terminal activity location(s) to survey for marine mammals and sea turtles. <b>(Sections 1.1.b &amp; 2.0.a)</b>	Defense Program & RTS	Flights during week prior to the test / as close to launch as safely practicable
8	Monitor for and report opportunistic observations of marine mammals and sea turtles. <b>(Sections 1.1.o &amp; 2.0.c)</b>	Defense Program & RTS	During travel to and from test support locations
9	Conduct overflights of terminal test locations to survey for dead or injured marine mammals and sea turtles. Report as required in <b>Section 2.0.e</b> . <b>(Section 1.1.q)</b>	Defense Program, USASMDC, & USAG-KA	As soon as safely practical after test
10	Conduct regular (monthly or quarterly if possible) hydrophone or other surveys of marine mammals in	Defense Program	Throughout testing period as funds are available

Number	Requirement	Responsible Party	Due Date
	the KMISS and the RMI broad ocean area. <b>(Section 1.3.j)</b>		
11	Conduct additional marine surveys around all of the USAKA islands and in the Mid-Atoll Corridor. <b>(Section 1.3.i)</b>	Defense Program	As funds are available
12	A post-flight notification for Minuteman III and GBSD activities will be provided to USASMDC and USAG-KA. <b>(Section 4.3.c)</b>	Defense Program, USASMDC & USAG-KA	After test
13	Response to releases of oil, fuels and lubricants into the USAKA environment shall be in accordance with the Kwajalein Environmental Emergency Plan (KEEP) (UES §3-6.5.8) <b>(Section 1.4.c &amp; 1.1.e)</b>	Defense Program, USAG-KA, & RTS	Prior to and after test
14	If cultural or historic remains are discovered, work shall cease and the appropriate agencies will be contacted. <b>(Section 2.0.d)</b>	Defense Program & USAG-KA	Prior to and after test
<b>Land Impact Illeginni Requirements and Limitations</b>			
15	Survey Illeginni Islet for sea turtles or sea turtle nests. Report as in <b>Section 2.0.h. (see Section 2.0.g)</b>	Defense Program & USAG-KA	Weekly for at least 8 weeks prior to test
16	Conduct search for black-naped tern nests and chicks prior to any pre-flight equipment mobilization. Flag discovered nests with at a stake 3 feet (1 meter) from nest to prevent disturbance. Prior to test, cover with an A-frame structure as per current USFWS guidance. <b>(Section 1.1.r)</b>	Defense Program	Prior to test
17	Cover support equipment with tarps or other material and/or use “scare” techniques (e.g., scarecrows, mylar ribbons, and/or flags) to prevent bird nesting on equipment. <b>(Section 1.1.s)</b>	Defense Program	Prior to test
18	For land impact, inspect beach area for active turtle nests or hauled out sea turtles at Illeginni Islet. <b>(Section 1.1.p)</b>	Defense Program & RTS	Prior to test, as close to launch as safely practicable
19	Survey the islet and near-shore waters for injured wildlife and damaged coral or sensitive habitat. <b>(Section 1.1.u)</b>	Defense Program, USASMDC & USAG-KA	When feasible, within 1 day after land impact test

<b>Number</b>	<b>Requirement</b>	<b>Responsible Party</b>	<b>Due Date</b>
20	Test soil samples to ensure that the concentrations of Be, U, and other metals do not exceed established UES standards. <b>(Section 1.1.i, m)</b> If standards are exceeded, follow requirements in <b>Sections 1.1.i, m, &amp; n.</b>	Defense Program & USASMDC	After test
21	If an RV impact affects the reef or shallow waters or debris enters these areas, mitigation measures in <b>Sections 1.1.t, v, w, &amp; x; 1.3.f, g, &amp; h;</b> and <b>4.3.a</b> shall be implemented.	Defense Program, USAG-KA, RTS, & USASMDC	After test and within 24 hours when feasible
<b>KMISS/Illeginni Vicinity Impact Requirements and Limitations</b>			
22	Recover any floating debris from the test vehicle and properly dispose of it. <b>(Section 1.2.b)</b>	Defense Program, RTS & USAG-KA	After test
<b>Reporting Procedures</b>			
23	Record and report all action-related take of UES-consultation species <b>(Sections 1.3.h &amp; 6.0.b)</b>	Defense Program & USASMDC	After test
24	Provide Survey/Impact Report to NMFS and USFWS. <b>(Sections 1.3.h (5) &amp; 6.0.d)</b>	Defense Program & USASMDC	Within 6 months of end of each fiscal year
25	Notify the Appropriate Agencies and the Government of the Republic of the Marshall Islands of a test event which involves a test failure, anomalies, or termination within the RMI. <b>(Sections 4.0 &amp; 6.0.a)</b>	Defense Program, USAG-KA, RTS, & USASMDC	Within 5 calendar days
26	Report any emergency notification of an incident involving species and habitats of special Concern to NMFS, USFWS, and the RMIEPA. <b>(Sections 1.3.h &amp; 6.0.b)</b>	Defense Program & USASMDC	Within 10 calendar days
27	Update the 2012 MMIII Recovery Plan (Yakuma 2012) to include the GBSD Program.	Defense Program	Prior to test

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## ABBREVIATIONS AND ACRONYMS

BA	Biological Assessment
Be	Beryllium
BO	Biological Opinion
BMP	Best Management Practice
DEP	Document of Environmental Protection
DOD	Department of Defense
DU	Depleted Uranium
ECA	Eniwetak Conservation Area
FY	Fiscal Year
GBSD	Ground Based Strategic Deterrent
HAFB	Hill Air Force Base
ICBM	Intercontinental Ballistic Missile
KEEP	Kwajalein Environmental Emergency Plan
KMISS	Kwajalein Missile Impact Scoring System
LCU	Landing Craft Utility
LLNL	Lawrence Livermore National Laboratory
Mk	Mark
MMIII	Minuteman III
NCA	Notice of Continuing Activity
NMFS	National Marine Fisheries Service
NOTAM	Notice to Airmen
NOTMAR	Notice to Mariners
NPA	Notice of Proposed Activity
RMI	Republic of the Marshall Islands
RMIEPA	Republic of the Marshall Islands Environmental Protection Authority
RMIHPO	Republic of the Marshall Islands Historic Preservation Office
RTS	Reagan Test Site (Ronald Reagan Ballistic Missile Defense Test Site)
RV	Reentry Vehicle
UES	USAKA Environmental Standards and Procedures
US	United States
USACE	United States Army Corps of Engineers, Honolulu District
USAF	United States Air Force
USAFGSC	US Air Force Global Strike Command
USAG-KA	United States Army Garrison-Kwajalein Atoll
USAKA	United States Army Kwajalein Atoll
USASMDC	United States Army Space and Missile Defense Command
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
VSFB	Vandenberg Space Force Base

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## 1.0 REQUIREMENTS AND LIMITATIONS

*(Predetermined responsibility for tasks is provided where appropriate.)*

### 1.1 General Requirements and Limitations:

- a. Prior to a flight test, safety precaution measures shall be implemented. Within the Mid-Atoll Corridor nonessential personnel shall be evacuated and mission critical personnel shall be sheltered. Notices to Airmen (NOTAMs) and Notice to Mariners (NOTMARs) shall be published and circulated in accordance with established procedures. Radar and visual sweeps of the hazard area shall be accomplished immediately prior to a test flight to ensure clearance of non-critical personnel. [Defense Program, USAG-KA, & RTS]
- b. Personnel shall conduct a helicopter or fixed-wing aircraft overflight in the vicinity of the KMISS or Illeginni Islet impact area during the week prior to the test and as close to launch as safely practical to survey for marine mammals and sea turtles. The final overflight shall be made within one day of the proposed launch. [Defense Program & RTS]
- c. During the flight test, personnel in the vicinity of the impact area shall comply with the Army's Hearing Conservation Program. Depending on their location, personnel may be required to wear hearing protection. [Defense Program]
- d. Vessel operations, particularly in the vicinity of KMISS or Illeginni, shall only occur when weather and sea conditions are acceptable for safe travel. [Defense Program & USAG-KA]
- e. Vessel operations shall not involve any intentional ocean discharges of fuel, toxic wastes, or plastics and other solid wastes that could potentially harm marine life. [Defense Program, USAG-KA, & RTS]
- f. Prior to the shipment of test support equipment and materials from the US to RTS, the equipment shall be washed, and a certified Pest Control Technician or Military Veterinarian shall inspect the equipment to ensure that it does not contain any insects, animals, plants, or seeds. [Defense Program]
- g. Prior to returning the test support equipment and materials to the US, the equipment shall be washed, and a certified Pest Control Technician shall inspect the equipment again to ensure that it does not contain any insects, animals, plants, or seeds that might have been picked up during fielding. [Defense Program & RTS]
- h. To avoid impacts on coral heads off Gagan Islet and Illeginni Islet, sensor rafts shall not be located in waters less than 10 feet (3 meters) deep. [Defense Program & RTS]
- i. During ocean travel to and from impact and test support areas, ship personnel shall monitor for marine mammals and sea turtles to avoid potential ship strikes. Vessel operators shall also adjust their speed based on expected animal densities, and on lighting and turbidity conditions. [Defense Program, USAG-KA, & RTS]
- j. If practical within mission requirements, the flight test shall be conducted during midday when birds are typically at rest and less likely to be within the impact area. [Defense Program & RTS]
- k. Following impact, all sensor rafts shall be recovered using Landing Craft Utility (LCU) vessels. [Defense Program]
- l. Following a land-impact test, the Department of the Air Force and USAG-KA would collect soil and groundwater samples at various locations around the impact site and test the samples for Beryllium (Be), Depleted Uranium (DU) as Uranium (U), and other



1 heavy metals. Testing results exceeding the UES standards shall trigger an immediate  
2 investigation of the soil on Illeginni Islet, as detailed in the UES. Coordination shall be  
3 initiated with the Defense Program, US Army Space and Missile Defense Command  
4 (USASMDC), RMI Environmental Protection Authority (RMIEPA), and the other  
5 appropriate UES agencies to determine the scope and methods/procedures to be  
6 followed during the investigation and any subsequent soil removal or other remediation  
7 activities. [Defense Program & USASMDC]

- 8 **m.** Following the soil investigation required upon exceeding UES standards for Be and DU,  
9 the Defense Program and USASMDC shall transmit the records of Be and DU  
10 concentrations in soil to the RMIEPA General Manager, National Marine Fisheries  
11 Service (NMFS) Pacific Islands Regional Office, and the US Fish and Wildlife Service  
12 (USFWS) Pacific Islands Fish and Wildlife Office within two weeks from the date of  
13 receipt of such records from Lawrence Livermore National Laboratory (LLNL) or other  
14 analytical laboratories. [Defense Program & USASMDC]
- 15 **n.** During the above-referenced soil investigation, the possibility of endangered,  
16 threatened, or protected species moving into the area shall be monitored for, and work  
17 shall be delayed until any such species is out of harm's way or leaves the area. [Defense  
18 Program & RTS]
- 19 **o.** The monitoring program for marine mammals established for the open water areas at  
20 USAKA shall be continued. Opportunistic sightings of marine mammals from various  
21 air and watercraft operating in the Atoll shall be collected. As funds become available,  
22 remote sensing would be performed in the open water range south of Illeginni Islet or in  
23 the KMISS range east of Gagan Islet. [Defense Program & RTS]
- 24 **p.** As close to the time of launch as safely practical, qualified biologists or environmental  
25 staff members shall inspect the proposed impact area for sea turtles. Such sightings shall  
26 be reported to the USAG-KA Environmental Office, the RTS Range Directorate, and  
27 the Kwajalein Test Director. [Defense Program & RTS]
- 28 **q.** Personnel shall conduct a helicopter or fixed-wing aircraft overflight of the impact  
29 vicinity as soon as safely practical after the test to survey for any dead or injured marine  
30 animals and sea turtles with reporting requirements as per **Section 2.0.e** of this DEP.  
31 [Defense Program & RTS]
- 32 **r.** For land impacts on Illeginni, searches will be conducted for black-naped tern nests and  
33 chick prior to any pre-test equipment mobilization. Any discovered nests in the action  
34 area will be flagged at a stake 3 feet (1 meter) from the nest to avoid inadvertent damage  
35 or disturbance. Prior to the test, nests in the impact area would be covered with A-frame  
36 structures as per current USFWS guidance. [Defense Program]
- 37 **s.** To prevent birds from nesting on the support equipment after initial setup, the  
38 equipment would be appropriately covered with tarps or other materials and "scare"  
39 techniques (e.g., scarecrows, mylar ribbons, and/or flags) would be used on or near the  
40 equipment. [Defense Program]
- 41 **t.** In the event of an RV impact that affects the reef, personnel shall secure or remove from  
42 the water any substrate or coral rubble from the ejecta impact zone that may become  
43 mobilized by wave action. [Defense Program & RTS]
- 44 **u.** When feasible, within one day after the land impact test at Illeginni Islet, USAG-KA  
45 environmental staff would survey the islet and the near-shore waters for any injured

1 wildlife, damaged coral, or damage to sensitive habitats (i.e., reef habitat). Any impacts  
2 to biological resources would be reported to the Appropriate Agencies, with USFWS  
3 and NMFS offered the opportunity to inspect the impact area to provide guidance on  
4 mitigations.

- 5 v. If an inadvertent impact occurs on the reef, reef flat, or in shallow waters less than 3 m  
6 deep, an inspection by project personnel would occur within 24 hours. Representatives  
7 from NMFS and USFWS would also be invited to inspect the site as soon as practical  
8 after the test. The inspectors would assess any damage to coral and other natural and  
9 biological resources and, in coordination with USAF, USAG-KA, and RTS  
10 representatives, decide on any response measures that may be required.
- 11 w. If any man-made debris were to enter the marine environment and divers were required  
12 to search for payload debris on the adjacent reef flat, they would be briefed prior to  
13 operations about coral fragility and provided guidance on how to carefully retrieve the  
14 very small pieces of payload debris that they would be looking for.
- 15 x. In the event of a RV impact that affects the reef, the Defense Program shall require its  
16 personnel to reduce impacts on top shell snails. (Note: these requirements are also listed  
17 under Incidental Take Terms and Conditions, **Section 1.3** in this DEP.)
- 18 (1) Survey the ejecta field for impacted corals and top shell snails. Also be mindful for  
19 any other UES-consultation species that may have been affected.
- 20 (2) Rescue and reposition any living top shell snails that are buried or trapped by rubble.
- 21 (3) Relocate to suitable habitat, any living top shell snails that are in the path of any  
22 heavy equipment that must be used in the marine environment.
- 23 y. In accordance with previous consultation with USFWS, the Defense Program shall  
24 abide by the 2005 USFWS Biological Opinion (BO) through 2030 and continue to  
25 maintain sea turtle nesting habitat on Eniwetak Islet based on the current Eniwetak  
26 Conservation Area (ECA) Management Plan developed and followed by USAG-KA.  
27 The Eniwetak Conservation Area includes Eniwetak Islet and its marine waters and  
28 surrounding reefs extending at a minimum 984 feet (300 m) seaward of the mean low  
29 water line. The DAF plans to continue to fund and support the preserve through 2030.  
30 The Eniwetak Conservation Area Management Plan (Kwajalein Range Services 2017)  
31 contains a detailed description of the conservation activities that the DAF supports in  
32 maintaining the preserve. These activities include protocols to ensure that unauthorized  
33 personnel do not have access to Eniwetak, enforcement of a no-anchor zone at the  
34 conservation area, sea turtle nest monitoring, and maintenance of sea turtle nesting  
35 habitat.

36  
37 **1.2 KMISS/Illeginni Vicinity Impact Requirements and Limitations:**

- 38 a. The Defense Program shall prepare a detailed cleanup plan that satisfies human health  
39 and safety requirements and incorporates measures to minimize ocean pollution.  
40 [Defense Program]
- 41 b. Although no floating debris from the delivery vehicle or payload impact in the vicinity  
42 is expected, ship personnel shall recover any floating debris from the vehicle and  
43 properly dispose of it. This shall include the recovery of visible debris in shallow (less  
44 than 100 feet (30 meters)) ocean waters by range divers. [Defense Program, RTS &  
45 USAG-KA]

1 c. Personnel shall conduct a helicopter or fixed-wing aircraft overflight of the impact area  
2 vicinity as soon as safely practical after the test to survey for any dead or injured marine  
3 animals. Such sightings shall be reported to the USAG-KA Environmental Office, the  
4 RTS Range Directorate, the Kwajalein Test Director, and USASMDC; USASMDC  
5 shall then forward the information to the Appropriate Agencies. [Defense Program,  
6 USAG-KA, RTS, & USASMDC]  
7

8 **1.3 Incidental Take Terms and Conditions (Based on USFWS Biological Opinion 2005,**  
9 **NMFS Biological Opinion 2015, and NMFS Biological Opinion 2021)**

10 a. For MMIII, incidental take may occur in the form of harm or harassment to the breeding  
11 success; loss of up to three green turtle nests or injury, loss of up to 300 eggs or  
12 hatchlings; loss of up to 117 top shell snails; or loss of up to 49,645 colonies within the  
13 15 species of UES consultation corals as a result of project-related payload impacts on  
14 USAKA and RTS.

15 b. For GBSD, flight tests at USAKA might result in incidental take of up to 31,224  
16 colonies within seven UES-consultation coral species, up to nine top shell snails, up to  
17 219 individuals within two clam species, and up to 324 humphead wrasse.

18 c. Payload shall be aimed away from known sea turtle nesting areas within the Mid-Atoll  
19 Corridor Impact Area in order to minimize the number of turtle nests destroyed.  
20 [Defense Program]

21 d. The Defense Program shall inspect the impact zones to assess sea turtle mortality after  
22 the Flight Test. Baseline data shall be collected at Illeginni prior to the Flight Test for  
23 comparison purposes.

24 e. The Defense Program shall reduce impacts on UES-protected corals and top shell snails  
25 and their habitats through the employment of Best Management Practices (BMPs) and  
26 conservation measures.

27 (1) The Defense Program shall ensure that personnel comply fully with the BMPs, and  
28 conservation measures identified in the 2015 Biological Assessment (BA), the 2021  
29 Biological Opinion, and provided in the sections below.

30 (2) The Defense Program shall work with USAG-KA to ensure that all relevant  
31 personnel associated with MMIII and GBSD flight tests are fully briefed on the  
32 BMPs and the requirement to adhere to them for the duration of MMIII and GBSD  
33 flight tests.

34 f. In the event the payload land impact affects the reef at Illeginni, the Defense Program  
35 shall require its personnel to secure or remove from the water any substrate or coral  
36 rubble from the ejecta impact zone that may become mobilized by wave action as soon  
37 as possible.

38 (1) Ejecta greater than six inches in any dimension shall be removed from the water or  
39 positioned such that it would not become mobilized by expected wave action,  
40 including replacement in the payload crater.

41 (2) If possible, coral fragments greater than six inches in any dimension shall be  
42 positioned on the reef such that they would not become mobilized by expected wave  
43 action, and in a manner that would enhance its survival; away from fine sediments  
44 with the majority of the living tissue (polyps) facing up.

- 1 (3) UES consultation coral fragments that cannot be secured in-place should be  
2 relocated to suitable habitat where it is not likely to become mobilized.
- 3 g. In the event the payload land impact affects the reef at Illeginni, the Defense Program  
4 shall require its personnel to reduce impacts on top shell snails and clams.  
5 (1) Rescue and reposition any living top shell snails and clams that are buried or trapped  
6 by rubble.  
7 (2) Relocate to suitable habitat, any living top shell snails and clams that are in the path  
8 of any heavy equipment that must be used in the marine environment.
- 9 h. All action-related take of UES-consultation species shall be recorded and reported by  
10 the Defense Program through USASMDC. [Defense Program & USASMDC]  
11 (1) The Defense Program shall assign appropriately qualified personnel to record all  
12 suspected incidences of take of any UES-consultation species.  
13 (2) The Defense Program shall utilize digital photography to record any UES-  
14 consultation species that is found injured or killed in or near the ocean target areas.  
15 As practicable: 1) Photograph all damaged corals and/or other UES-consultation  
16 species that may be observed injured or dead; 2) Include a scaling device (such as a  
17 ruler) in photographs to aid in the determination of size; and 3) Record the location  
18 of the photograph.  
19 (3) In the event the payload impact affects the reef at Illeginni, the Defense Program  
20 shall require its personnel to survey the ejecta field for impacted corals, top shell  
21 snails, and clams. Also be mindful for any other UES consultation species that may  
22 have been affected.  
23 (4) Within 60 days of completing post-test clean-up, the Defense Program shall provide  
24 photographs and records through USASMDC to the USAG-KA Environmental  
25 Office. Qualified biologists or environmental staff members and NMFS biologists  
26 shall review the photographs and records to identify the organisms to the lowest  
27 taxonomic level accurately possible to assess impacts on consultation species.  
28 (5) Within 6 months of completion of each fiscal year, the Defense Program, through  
29 USASMDC, shall provide an annual report for submittal to USAG-KA and NMFS.  
30 The report shall identify:  
31 i. The flight test and date;  
32 ii. The target area;  
33 iii. The results of the pre- and post-flight surveys;  
34 iv. The identity and quantity of affected resources (include photographs and  
35 videos as applicable); and  
36 v. The disposition of any relocation efforts.
- 37 i. As funds become available, the Defense Program shall conduct additional marine  
38 surveys around all of the USAKA islands and in the Mid-Atoll Corridor to develop a  
39 more comprehensive understanding of the distribution and abundance of species and  
40 habitats at USAKA.
- 41 j. As funds become available, the Defense Program shall conduct regular (monthly or  
42 quarterly if possible) surveys of the KMISS and the RMI broad ocean area to develop a  
43 better understanding of the distribution and abundance of marine mammals and other  
44 species in the area.

- 1 k. As funds become available, the Defense Program shall support development of USAG-  
2 KA's capacity and procedures for responding to marine mammal and turtle strandings.  
3 To provide this capacity, USAG-KA shall:  
4 (1) Acquire required permits and training to perform necropsies and/or to take and  
5 transport tissue samples.  
6 (2) Develop professional relations with qualified federal agencies and universities to  
7 capitalize on samples and information gained at USAKA.  
8 (3) Develop mechanisms to collect and disseminate the information.  
9 l. If, during the course of the action, the level of incidental take is exceeded, such  
10 incidental take represents new information requiring reinitiation of the consultation and  
11 review of the reasonable and prudent measures provided and activities causing or  
12 contributing to the taking shall immediately cease. The Defense Program, through  
13 USASMDC, shall immediately provide an explanation of the causes of the taking, and  
14 review with the USFWS or NMFS, as applicable, the need for possible modification of  
15 the reasonable and prudent measures.  
16 m. Reinitiation of formal consultation with NMFS is required if the amount or extent of  
17 anticipated incidental take is exceeded; new information reveals that the action may  
18 affect UES-protected marine species or critical habitat in a manner or to an extent not  
19 considered in the Biological Opinions; the action is subsequently modified in a manner  
20 that may affect UES-protected marine species or critical habitat to an extent, or in a  
21 manner not considered in the Biological Opinions; or a new species is listed or critical  
22 habitat designated that may be affected by the action.

23  
24 **1.4 Material and Waste Management:**

- 25 a. Hazardous waste treatment or disposal is prohibited at USAKA [UES §3-6.6.5(a)].  
26 b. All activities at USAKA importing activity-specific hazardous materials into USAKA  
27 shall submit within 15 days of receiving the material or before actual use, whichever  
28 comes first, a separate Hazardous Materials Procedure to the Commander, USAKA, for  
29 approval (UES §3-6.4.3).  
30 c. Response to releases of oil, fuels and lubricants into the USAKA environment shall be  
31 in accordance with the Kwajalein Environmental Emergency Plan (KEEP) (UES §3-  
32 6.5.8).  
33 1. Any accidental spills from support equipment operations would be contained  
34 and cleaned up and all waste materials would be transported to Kwajalein Islet  
35 for proper disposal.  
36 2. Vessel and heavy equipment operators would inspect and clean equipment for  
37 fuel or fluid leaks prior to use or transport and would not intentionally  
38 discharge fuels or waste materials into terrestrial or marine environments.  
39 d. Delivery vehicle and payload debris could consist of batteries and various heavy metal  
40 components that include small quantities of Be, chromium and nickel alloys. All waste  
41 materials collected by the Defense Program shall be returned to USAKA for proper  
42 storage and disposal in accordance with the UES.  
43 e. Debris recovery and site cleanup would be performed for a land impact. To minimize  
44 long-term risks to marine life, all visible project-related man-made debris would be



1 recovered during post-flight operations. In all cases, recovery and cleanup would be  
2 conducted in a manner to minimize further impacts on biological resources.

- 3 1. All project-related debris, trash, and equipment would be removed from the  
4 beach and dunes if not actively being used
  - 5 2. No project-related materials or equipment would be stockpiled or stored in the  
6 intertidal zone, reef flats, sandy beach and adjacent vegetated areas.
- 7 **f.** Project Activities would incorporate the applicable USFWS “Recommended Standard  
8 Best Management Practices” regarding work in aquatic environments. Any necessary  
9 dredge and fill activities would be carried out after consultations with appropriate  
10 agencies or USAG-KA. BMPs include the following:
- 11 1. Authorized dredging and filling-related activities that may result in the  
12 temporary or permanent loss of aquatic habitats should be designed to avoid  
13 indirect, negative impacts to aquatic habitats beyond the planned project area.
  - 14 2. Dredging/filling in the marine environment should be scheduled to avoid coral  
15 spawning and recruitment periods, and sea turtle nesting and hatching periods.
  - 16 3. Turbidity and siltation from project-related work should be minimized and  
17 contained within the project area by silt containment devices and curtailing  
18 work during flooding or adverse tidal and weather conditions. BMPs should be  
19 maintained for the life of the construction period until turbidity and siltation  
20 within the project area is stabilized. All project construction-related debris and  
21 sediment containment devices should be removed and disposed of at an  
22 approved site.
  - 23 4. All project-related materials and equipment (dredges, vessels, backhoes, silt  
24 curtains, etc.) to be placed in an aquatic environment should be inspected for  
25 pollutants including, but not limited to; marine fouling organisms, grease, oil,  
26 etc., and cleaned to remove pollutants prior to use. Project related activities  
27 should not result in any debris disposal, non-native species introductions, or  
28 attraction of non-native pests to the affected or adjacent aquatic or terrestrial  
29 habitats.
  - 30 5. Project-related materials (fill, revetment rock, pipe, etc.) and equipment should  
31 not be stockpiled in, or in close proximity to aquatic habitats and should be  
32 protected from erosion (e.g., with filter fabric, etc.), to prevent materials from  
33 being carried into waters by wind, rain, or high surf.
  - 34 6. Fueling of project-related vehicles and equipment should take place away from  
35 the aquatic environment and a contingency plan to control petroleum products  
36 accidentally spilled during the project should be developed. The plan should be  
37 retained on site with the person responsible for compliance with the plan.  
38 Absorbent pads and containment booms should be stored on-site to facilitate  
39 the clean-up of accidental petroleum releases.
  - 40 7. All deliberately exposed soil or under-layer materials used in the project near  
41 water should be protected from erosion and stabilized as soon as possible with  
42 geotextile, filter fabric or native or non-invasive vegetation matting, hydro-  
43 seeding, etc.
- 44

1 **2.0 MONITORING PROCEDURES**

- 2 a. Personnel shall conduct a helicopter or fixed-wing aircraft overflight of the KMISS  
3 vicinity over the week prior to the flight test and as close to the proposed test launch  
4 time as safely practicable. The final overflight shall be made within one day of the  
5 proposed launch. If personnel observe marine mammals or sea turtles in the vicinity,  
6 they shall report such findings to the USAG-KA Environmental Office, the RTS Range  
7 Directorate, and the Flight Test Operations Director. [Defense Program & RTS]
- 8 b. During travel to and from Gagan, Illeginni, and KMISS, personnel shall monitor for  
9 marine mammals and sea turtles to avoid potential ship strikes. Vessel operators shall  
10 adjust their speed based on expected animal densities, and on lighting and turbidity  
11 condition. [Defense Program, RTS & USAG-KA]
- 12 c. Any marine mammals or sea turtle observations during ship travel, overflights, and  
13 deployment of the free-floating sensors in the vicinity of KMISS or Illeginni Islet  
14 impact areas shall be reported to the USAG-KA Environmental Office, the RTS Range  
15 Directorate, and the Flight Test Operations Director. USAG-KA aircraft pilots flying in  
16 the vicinity of the impact and test support areas shall also report any opportunistic  
17 sightings of marine mammals and sea turtles. The USAG-KA Environmental Engineer  
18 would maintain records of these observations and report sightings to NMFS and/or  
19 USFWS. [Defense Program & USAG-KA]
- 20 d. If cultural or historic remains are discovered during the activities, work shall cease and  
21 the USAG-KA Environmental Office shall be notified. The RMI Historic Preservation  
22 Office (RMIHPO) shall be notified, and appropriate mitigation measures, developed in  
23 consultation with the RMIHPO, shall be implemented to minimize the effects on the  
24 resource or to recover as much of the resource as possible (conforming to professional  
25 standards for research), as directed by UES §3-7.5.7. [Defense Program & USAG-KA]
- 26 e. Post-test overflights of the impact area shall be conducted to survey for dead or injured  
27 cetaceans and sea turtles. Although unlikely, any dead or injured marine mammals or  
28 sea turtles sighted shall be reported through USASMDC to the USAG-KA  
29 Environmental Office, who shall then inform NMFS and USFWS. USAG-KA aircraft  
30 pilots otherwise flying in the vicinity of the impact and test support areas shall also  
31 report any opportunistic sightings of dead or injured marine mammals or sea turtles.  
32 [Defense Program, USASMDC, & USAG-KA]
- 33 f. During post-test recovery and cleanup, should personnel observe endangered,  
34 threatened, or other species requiring consultation moving into the area, work shall be  
35 delayed until such species were out of harm's way or leave the area. [Defense Program  
36 & RTS]
- 37 g. Pre-flight monitoring by qualified personnel will be conducted on Illeginni Islet for sea  
38 turtles or sea turtle nests. For at least 8 weeks preceding the launch, Illeginni Islet would  
39 be surveyed by pre-test personnel for sea turtles, sea turtle nesting activity, and sea turtle  
40 nests. If possible, personnel will inspect the area within days of the launch. If sea turtles  
41 or sea turtle nests are observed near the impact area, observations would be reported to  
42 appropriate test and USAG-KA personnel for consideration in approval of the launch,  
43 and to USFWS and NMFS. [Defense Program & USAG-KA]
- 44 h. Personnel will report any observations (including location, date, time, species, and  
45 number of individuals) of sea turtles or sea turtle nests on Illeginni Islet to the USAG-



1 KA Environmental Engineer who would maintain records of these observations and  
2 report sightings to USFWS. [Defense Program & USAG-KA]  
3

### 4 **3.0 MINOR DEP MODIFICATIONS**

5 Minor modifications to this DEP may be accomplished under the provisions of UES §2-17.3.6(e).  
6

### 7 **4.0 NOTIFICATION PROCEDURES**

#### 8 **4.1 Emergency Notifications Material and Waste Management**

- 9 **a.** Within 24 hours of discovery of an emergency environmental condition, USAG-KA  
10 shall notify the public affected or potentially affected by the condition and the  
11 Appropriate Agencies by the most expeditious means available.  
12 **b.** Within 10 days following emergency notification, USAG-KA shall submit written  
13 notification of the event to the Appropriate Agencies that contains at a minimum the  
14 relevant information described in UES §2-7.2.2.  
15 **c.** Emergency notifications shall be made for any condition that poses an immediate threat  
16 to human health, safety, or sensitive natural or cultural resource, and any other condition  
17 that the Commander, USAG- KA, determines to constitute an emergency condition  
18 (UES §2-7.3.1).  
19

#### 20 **4.2 Public Notifications**

- 21 **a.** Public notifications shall be made by USAG-KA to advise the public of an activity or  
22 action that USAG-KA has taken or is planning as a result of emergency conditions.  
23 **b.** Public notification made as a result of emergency conditions shall be made in *The*  
24 *Kwajalein Hourglass* and *The Marshall Islands Journal*, posters or bulletins displayed  
25 in public places, announcements on Kwajalein Range Services Newslines and/or on  
26 public television.  
27 **c.** NOTAMs and NOTMARs shall be published and circulated in accordance with  
28 established procedures prior to each test.  
29

#### 30 **4.3 Agency Notification**

- 31 **a.** In the event that any species and habitats of Special Concern as stated in UES  
32 Appendices 3-4A thru 3-4D, are disturbed, transplanted, injured, or killed due to test  
33 activities, NMFS, USFWS, and RMIEPA shall be informed by USAG-KA within 24  
34 hours. [Defense Program, USASMDC & USAG-KA]  
35 **b.** If cultural or historic remains or artifacts are discovered during the course of MMIII and  
36 GBSD activities, work at the site shall cease and the USAG-KA Environmental Office  
37 shall be notified. The RMIHPO shall be notified, and appropriate mitigation measures,  
38 developed in consultation with the RMIHPO, shall be implemented to minimize the  
39 effects on the resource or to recover as much of the resource as possible (conforming to  
40 professional standards for research), as directed by UES §3-7.5.7. [Defense Program &  
41 USAG-KA]  
42 **c.** A post-flight notification for Minuteman III and GBSD activities will be provided to  
43 USASMDC and USAG-KA after each test.  
44

1 **5.0 RECORDS KEEPING**

- 2 a. The NPA, Environmental Comments and Recommendations, and the DEP permitting  
3 MMIII and GBSD activities at USAKA shall be preserved for the duration of the activity  
4 plus 10 years or for 10 years after expiration of the DEP, whichever is less. (UES §2-  
5 13.2.7)
- 6 b. All records associated with the activity shall be maintained for at least five years. (UES  
7 §2-13.2)
- 8 c. Personnel-training records shall be preserved for 10 years beyond the period the  
9 employee is engaged in activities potentially affecting the environment at USAKA (UES  
10 §2-13.2.1).

11  
12 **6.0 REPORTING PROCEDURES**

- 13 a. In the event of a test failure, anomalies, or termination, the respective Defense  
14 Program’s Project Office shall provide a notification statement to the Government of the  
15 RMI, via the USAG-KA Host Nation Office and US Embassy, within five days of a test  
16 event which involves a test failure, anomalies, or termination. This notification  
17 statement shall include the location, safety, and environmental consequences of the  
18 event.
- 19 b. A written report shall be provided to NMFS, USFWS, and the RMIEPA within 10 days  
20 following any emergency notification as per UES§2-7.3.1 of an incident resulting in the  
21 disturbance, transplant, injury, or death of any species and habitats of Special Concern  
22 as stated in UES Appendices 3-4A thru 3-4D. The report shall provide the type and  
23 number of organisms disturbed, transplanted, injured, or killed; their condition; the  
24 locations and conditions of the original and new habitats; and the projected chances of  
25 recovery if injured.
- 26 c. A written report shall be provided to the Appropriate Agencies if any of the  
27 requirements of the DEP or the UES are violated during the activity covered by this  
28 DEP within 30 days of the violation.
- 29 d. Within 6 months of completion of each fiscal year, the Defense Program, through  
30 USASMDC, shall provide an annual report for submittal to USAG-KA and NMFS. The  
31 report shall identify:
- 32 (1) The flight test and date;  
33 (2) The target area;  
34 (3) The results of the pre- and post-flight surveys;  
35 (4) The identity and quantity of affected resources (include photographs and videos as  
36 applicable); and  
37 (5) The disposition of any relocation efforts.

38  
39 **7.0 RESOLUTION OF NONCOMPLIANT AREAS**

40 Currently there are no known non-compliant MMIII and GBSD testing activities at RTS. With  
41 the implementation of the requirements, limitations, and monitoring protocols described in this  
42 DEP, MMIII and GBSD testing activities at RTS shall be in full compliance with the current  
43 UES Edition.  
44

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## 8.0 A CONSIDERATION OF CLIMATE CHANGE IMPACTS

Background Information: Climate change may be affecting marine ecosystems at Kwajalein Atoll. Climate refers to average weather conditions within a certain range of variability. The term climate change refers to distinct long-term changes in measures of climate, such as temperature, rainfall, snow, or wind patterns lasting for decades or longer. Climate change may result from the following: natural factors, such as changes in the Sun's energy or slow changes in the Earth's orbit around the sun; natural processes within the climate system (e.g., changes in ocean circulation); and human activities that change the atmosphere's makeup (e.g., burning fossil fuels) and the land surface (e.g., cutting down forests, planting trees, building developments in cities and suburbs, etc.), also known as anthropogenic climate change (U.S. Environmental Protection Agency 2022). The global mean temperature has risen 0.76°C over the last 150 years, and the linear trend over the last 50 years is nearly twice that for the last 100 years (Solomon et al. 2007). Sea level rose approximately 17 cm during the 20<sup>th</sup> century (Solomon et al. 2007) and further increases are expected.

Biological Impacts: Anthropogenic release of CO<sub>2</sub> and other greenhouse gases is considered the largest contributor to global climate change, and it is expected that the release of those gases is not only likely to continue, but the rate of their release is expected to increase during the next century (Brainard et al. 2011). Therefore, global climate change is expected to continue to impact UES-protected marine species and their habitats, especially on those species that are dependent on shallow coastal reefs and shorelines, such as corals and marine mollusks. Given the small area and low numbers of individuals expected to be adversely affected by the Proposed Action, the possible synergistic impacts of climate change combined with the effects of the Proposed Action are not expected to be significant for the corals, mollusks, and fish considered in the 2021 NMFS BO. Climate change-induced elevated water temperatures, altered oceanic chemistry, and rising sea level may be contributing to changes to coral reef ecosystems, and is likely beginning to affect corals and mollusks found in the action area. Climate change is a global phenomenon, so resultant impacts have likely been occurring in the action area. However, scientific data describing impacts in the action area are lacking, and no climate change-related impacts on UES-protected species within the action area have been reported to date.

Air Quality Impacts: Over the expected lifetime of the Proposed Action, launch vehicle exhaust products and other launch operation emissions are not anticipated to accumulate due to winds dispersing them between flight tests. In terms of upper atmospheric effects, emissions released may add to the overall global loading of chlorine and other gases that contribute to long-term ozone depletion. However, the amount of emissions released from rocket motors is negligible compared to losses of ozone from other global sources. Because the emissions would represent an extremely small percentage of total loading, they should not significantly contribute to the cumulative impact on stratospheric ozone.

Limitations & Requirements: The potential effects of greenhouse gas emissions from the Proposed Action are global. There is uncertainty associated with the analysis of potential impacts of climate change on species and ecosystems (Barnett 2001). Effects of climate change will not be globally uniform (Walther et al. 2002) and information regarding the magnitude of future climate change is speculative and fraught with uncertainties (Nicholls and Mimura 1998). In

1 particular, there is no comprehensive assessment of the potential impacts of climate change  
2 within the action area or specific to UES-protected marine species. In addition to the uncertainty  
3 of the rate, magnitude, and distribution of future climate change and its associated impacts on  
4 temporal and spatial scales, the adaptability of species and ecosystems are also unknown. Impact  
5 assessment models that include adaptation often base assumptions (about when, how, and to  
6 what conditions adaptations might occur) on theoretical principles, inference from observed  
7 observations, and arbitrary selection, speculation, or hypothesis (see review in Smit et al. 2000).  
8 Impacts of climate change and hence its “seriousness” can be modified by adaptations of various  
9 kinds (Tol et al. 1998). Ecological systems evolve in an ongoing fashion in response to stimuli of  
10 all kinds, including climatic stimuli (Smit et al. 2000). Given the global nature of climate change  
11 and the current state of the science, it is not useful at this time to attempt to link the estimated  
12 emissions for local actions to any specific climatological change or resulting environmental  
13 impact.

14  
15  
16 **9.0 ENVIRONMENTAL COMMENTS AND RECOMMENDATIONS RECEIVED ON**  
17 **THE 2022 DRAFT DEP AND USAG-KA’S RESPONSES**

18 [Reserved]  
19  
20

21 **10.0 ENVIRONMENTAL COMMENTS AND RECOMMENDATIONS RECEIVED ON**  
22 **THE 2022 DRAFT NOTICE OF PROPOSED ACTIVITY AND USAG-KA’S**  
23 **RESPONSES**

24  
25 **NATIONAL MARINE FISHERIES SERVICE, PACIFIC ISLANDS REGIONAL**  
26 **OFFICE, PROTECTED RESOURCES DIVISION (NMFS)**

27 **COMMENT:** According to the UES, RTS is considered a tenant of USAG-KA at USAKA. The  
28 geographical place of the U.S. utilized 11 islets, mid-atoll corridor and surrounding air and water  
29 areas at Kwajalein Atoll is appropriately termed USAKA, not USAG-KA. The use of “RTS,  
30 USAG-KA, RMI” seems off. Would “RTS/USAG-KA (as host), USAKA, RMI” be better?  
31 Suggest correction or clarification of the use of this terminology throughout the document, lest  
32 we begin to lose track more generally.  
33

34 **USAKA RESPONSE:** Changed text throughout to reflect that USAG-KA means facilities,  
35 infrastructure, and operations at USAKA; USAKA is the geographical areas within Kwajalein  
36 Atoll and including tenants (USAG-KA, RTS, etc.).  
37

38 **NATIONAL MARINE FISHERIES SERVICE, PACIFIC ISLANDS REGIONAL**  
39 **OFFICE, PROTECTED RESOURCES DIVISION (NMFS)**

40 **COMMENT:** The map labeling seems to deviate from terminology defined in the UES with  
41 respect to the use of USAG-KA versus USAKA. USAKA is typically used when referencing the  
42 spatial area of Kwajalein Atoll including the 11 islets, mid-atoll corridor and surrounding air and  
43 water areas (see UES 16<sup>th</sup> ed. definitions). According to the UES, USAG-KA hosts tenants and

1 activities and covers facilities, infrastructure and operations at USAKA. USAKA is comprised of  
2 the islets, MAC, etc. and includes USAG-KA and all tenants including RTS. Suggest the labeling  
3 be changed to USAKA, and that such be checked and corrected throughout the document.  
4

5 **USAKA RESPONSE:** Labels changed to USAKA, as suggested.  
6

7 **NATIONAL MARINE FISHERIES SERVICE, PACIFIC ISLANDS REGIONAL**  
8 **OFFICE, PROTECTED RESOURCES DIVISION (NMFS)**

9 **COMMENT:** The way this is phrased suggests the discretionary recommendation made in 2005  
10 to work to eradicate rodents from Eniwetak and or Gellinam has, to date, never been  
11 implemented. If this is so, and as it has been 16-plus years since the recommendation was made,  
12 why include it here now (it appears wholly ingenuous)? I may be wrong, but I thought some  
13 things had been accomplished over the years on this front. If so, those actions should be  
14 summarized and clarification on their augmentation should be provided. If not, perhaps some  
15 explanation should be provided. If the newly suggested commitment to this is not credible,  
16 strongly suggest leaving it out of this NPA.  
17

18 **USAKA RESPONSE:** This measure has been removed from the NPA.  
19

20 **NATIONAL MARINE FISHERIES SERVICE, PACIFIC ISLANDS REGIONAL**  
21 **OFFICE, PROTECTED RESOURCES DIVISION (NMFS)**

22 **COMMENT:** Similar to item 3 above, if the DAF has not conducted a risk analysis of sea turtle  
23 exposure to DU and Be at Illeginni since the recommendation was made in 2005 (16-plus years  
24 ago), why would anyone now believe such will be completed associated with this NPA? The lack  
25 of action on this particular analysis, which appears suggested in the wording, should be  
26 explained along with how and why things will differ moving forward, if such is intended. If not  
27 intended, recommend removing the suggestion that it “may” be. Is turtle nesting needed to do the  
28 study, and if so, is the absence of noted nests at Illeginni the reason this remains in play? Are  
29 there active study plans and UES regulatory items (BO or LOC) that exist that may be referenced  
30 as evidence of ongoing intention?  
31

32 **USAKA RESPONSE:** This measure has been removed from the NPA.  
33

34 **NATIONAL MARINE FISHERIES SERVICE, PACIFIC ISLANDS REGIONAL**  
35 **OFFICE, PROTECTED RESOURCES DIVISION (NMFS)**

36 **COMMENT:** The language here appears outdated and again raises questions of credibility.  
37 NMFS would be very interested, and has continuously pressed for additional hydrophone data  
38 off Illeginni. However, USAKA has not, for years, demonstrated notable movement forward in  
39 collecting such additional data (off Illeginni or Gagan KMISS). The limited existing data from  
40 the single deployed hydrophone was analyzed years ago; it is not clear what further of it “will  
41 be” analyzed. See also Page 13 lines 13-18. Please explain.  
42



1 **USAKA RESPONSE:** The wording of this sentence was changed a bit. This measure will  
2 remain in the NPA and DEP. Given the importance of marine mammal data for USAKA, this  
3 measure has been added to the DAF mitigation implementation schedule in the DEP to facilitate  
4 discussion with DAF about implementing these hydrophone studies in the near future.  
5

6 **NATIONAL MARINE FISHERIES SERVICE, PACIFIC ISLANDS REGIONAL**  
7 **OFFICE, PROTECTED RESOURCES DIVISION (NMFS)**

8 **COMMENT:** The NMFS has requested but has not received evidence (of which I am aware)  
9 that this overflight and mammal/turtle reporting conservation recommendation has ever been  
10 implemented, despite its long-term persistence within environmental documents related to re-  
11 entry vehicle missions at USAKA. NMFS requested past records of overflights (and marine  
12 vessel trips) and related sightings/no sightings as evidence of implementation, and importantly as  
13 a source of data to inform future UES consultation risk analyses. It is not a conservation  
14 measure, and there is no measure of its intended mitigation effect, if this recommendation isn't  
15 implemented. The absence of past records raises concerns regarding NPA (and likely DEP)  
16 credibility. See also Page 21 lines 35-37; Page 22 lines 1-7 and 21-22.  
17

18 **USAKA RESPONSE:** SMDC will send NMFS the survey report for FE-2: “Illeginni  
19 Environmental and Biological Activity Survey and Sampling Report for FE-2 Pre and Post Test  
20 Activity”. This measure has been added to a mitigation schedule in the DEP to facilitate  
21 compliance for the future MMIII and GBSD tests.  
22

23 **NATIONAL MARINE FISHERIES SERVICE, PACIFIC ISLANDS REGIONAL**  
24 **OFFICE, PROTECTED RESOURCES DIVISION (NMFS)**

25 **COMMENT:** NMFS would need to be involved; we are the primary agency in the US regarding  
26 marine species in the water. Also, recommend including the RMIEPA.  
27

28 **USAKA RESPONSE:** Revised as recommended.  
29

30 **NATIONAL MARINE FISHERIES SERVICE, PACIFIC ISLANDS REGIONAL**  
31 **OFFICE, PROTECTED RESOURCES DIVISION (NMFS)**

32 **COMMENT:** Potential typo, “recovery plants” = “recovery plans”?  
33

34 **USAKA RESPONSE:** Recommended changes made.  
35

36 **NATIONAL MARINE FISHERIES SERVICE, PACIFIC ISLANDS REGIONAL**  
37 **OFFICE, PROTECTED RESOURCES DIVISION (NMFS)**

38 **COMMENT:** It is not clear what is being used to substantiate the contention that cetaceans  
39 around KMISS are “sometimes seasonal in occurrence because of unique migration patterns”.  
40 What seasons, when “sometimes”, what migrations? Are there measurements that exist specific  
41 to the populations that show up around USAKA? If so, we suggest referencing such and please  
42 share that information with NMFS so it may be examined and applied in future efforts

1 (vessel/overflight records, other?). If not, is this just assumed, or is it extrapolated from some  
2 other region and just lacking appropriate reference? Please provide a source and basis for the  
3 statement. If measures do exist, please relate whether the “sometimes seasonal” characterization  
4 is likely a reflection of the timing and nature of the measurement, the organisms, or both.  
5

6 **USAKA RESPONSE:** Measures for the RMI do not exist to our knowledge. Added citation for  
7 description of the varying migration patterns of cetaceans in the Pacific Islands Region:  
8 Miller, C. 2007. Current State of Knowledge of Cetacean Threats, Diversity, and Habitats in the  
9 Pacific Islands Region. A Report by the Whale and Dolphin Conservation Society.

10  
11 **NATIONAL MARINE FISHERIES SERVICE, PACIFIC ISLANDS REGIONAL**  
12 **OFFICE, PROTECTED RESOURCES DIVISION (NMFS)**

13 **COMMENT:** The timing and densities of migrations could very well be estimated/assessed with  
14 a small multi-year study using hydrophones in the area. NMFS has repeatedly recommended this  
15 be done to better inform on species impact risks and allow for time specific mitigations, if  
16 warranted. The KMISS hydrophone array itself may be used for such purposes (discussed with  
17 Navy installer during refurbishing; it was suggested that just a few additional pieces of shoreline  
18 hardware would be needed to allow for such). The sentence structuring here is somewhat mis-  
19 informative; it seems to suggest there is no ability to gain useful prediction due to the mobile and  
20 migratory nature of the animals. However, there is a wealth of evidence that suggests marine  
21 mammal migrations tend to be patterned, measurable and predictable. Reasonable pattern and  
22 density estimates may be made if simple efforts are put in place to passively collect data using  
23 hydrophones. The sentence provided should be modified/augmented and appropriately  
24 referenced to state that there are straightforward means to achieve useful levels of predictability,  
25 along with the reasons why USAKA will or will not choose to pursue those means prior to or  
26 during this proposed action.  
27

28 **USAKA RESPONSE:** Sentence on timing and densities removed. Given the importance of  
29 marine mammal data for USAKA, this measure has been added to the DAF mitigation  
30 implementation schedule in the DEP to facilitate discussion with DAF about implementing these  
31 hydrophone studies in the near future.  
32

33 **NATIONAL MARINE FISHERIES SERVICE, PACIFIC ISLANDS REGIONAL**  
34 **OFFICE, PROTECTED RESOURCES DIVISION (NMFS)**

35 **COMMENT:** The preceding wording in this paragraph is a little confusing as the section is  
36 labeled terrestrial but the wording within includes nearshore waters. Please note, the RMIEPA  
37 and NMFS are responsible for UES procedures related to sea turtle impacts in USAKA waters,  
38 including those nearshore, and would need to be informed and provided with the stated report if  
39 the impacts are to sea turtles in the water. If the impacts are to sea turtles on land, such a report  
40 should be sent to the RMIEPA and USFWS.  
41

42 **USAKA RESPONSE:** Revised for clarity and as recommended.  
43



1 **NATIONAL MARINE FISHERIES SERVICE, PACIFIC ISLANDS REGIONAL**  
2 **OFFICE, PROTECTED RESOURCES DIVISION (NMFS)**

3 **COMMENT:** "...this DEP" is referenced, but this is an NPA.  
4

5 **USAKA RESPONSE:** Changed text to say "this project's DEP".  
6

7 **NATIONAL MARINE FISHERIES SERVICE, PACIFIC ISLANDS REGIONAL**  
8 **OFFICE, PROTECTED RESOURCES DIVISION (NMFS)**

9 **COMMENT:** The wording here is confusing. The discontinuation of MMIII landings on  
10 Illeginni Islet isn't a change from present-day, but it is indicated as such, and this is a joint  
11 MMIII and GBSD NPA with 1 to 3 Illeginni impacts expected into 2030, which is a change from  
12 present-day. We note the reasons for not reinitiating consultation with the USFWS are provided  
13 in Section 13, they are not made clear here.  
14

15 **USAKA RESPONSE:** Revised wording here.  
16

17 **NATIONAL MARINE FISHERIES SERVICE, PACIFIC ISLANDS REGIONAL**  
18 **OFFICE, PROTECTED RESOURCES DIVISION (NMFS)**

19 **COMMENT:** It isn't clear why this 2020 BA isn't referenced under the Page ii Line 53  
20 references section. Also, the NMFS 2021 BO does not appear under the Page ii references.  
21

22 **USAKA RESPONSE:** Citations for these added.  
23

24 **NATIONAL MARINE FISHERIES SERVICE, PACIFIC ISLANDS REGIONAL**  
25 **OFFICE, PROTECTED RESOURCES DIVISION (NMFS)**

26 **COMMENT:** Typo: "nest" to "nests".  
27

28 **USAKA RESPONSE:** Recommended changes made.  
29

30 **NATIONAL MARINE FISHERIES SERVICE, PACIFIC ISLANDS REGIONAL**  
31 **OFFICE, PROTECTED RESOURCES DIVISION (NMFS)**

32 **COMMENT:** Perhaps modify the statement to, "No migratory birds or other wildlife resources  
33 on land are expected to be harmed..." to avoid contradiction with the 2021 BO findings  
34 indicating likely adverse effects to marine-based UES consultation species that are summarized  
35 later in this section.  
36

37 **USAKA RESPONSE:** "terrestrial" and "marine" added in key locations to clarify.  
38

39 **NATIONAL MARINE FISHERIES SERVICE, PACIFIC ISLANDS REGIONAL**  
40 **OFFICE, PROTECTED RESOURCES DIVISION (NMFS)**

41 **COMMENT:** It may be worthwhile, when discussing or referring to critical habitat at USAKA,  
42 to denote it specifically as "RMI designated critical habitat". Most readers think of critical

1 habitat as being designated by the U.S. under the U.S. ESA, which it is, but the ESA and critical  
2 habitat designations do not apply in foreign countries or international waters.

3  
4 **USAKA RESPONSE:** Revised as recommended.

5  
6 **NATIONAL MARINE FISHERIES SERVICE, PACIFIC ISLANDS REGIONAL**  
7 **OFFICE, PROTECTED RESOURCES DIVISION (NMFS)**

8 **COMMENT:** The current MMIII project may be non-compliant with DEP Section 1.4 f (4). The  
9 NMFS does not appear to be receiving annual reports regarding pre and post-slight surveys. We  
10 have requested records (29 March 2021) related to the overflight and vessel surveys but have not  
11 received an indication that such exist, raising questions as to whether the overflights and  
12 monitoring during marine vessel maneuvers is occurring.

13  
14 **USAKA RESPONSE:** SMDC will send NMFS the survey report for FE-2: “Illeginni  
15 Environmental and Biological Activity Survey and Sampling Report for FE-2 Pre and Post Test  
16 Activity”. A schedule/checklist of requirements has been added to the DEP to facilitate DAF  
17 compliance with BO and UES requirements.

18  
19 **US FISH AND WILDLIFE SERVICE (USFWS)**

20 **COMMENT:** The Draft NPA should more thoroughly address potential for gradual  
21 accumulation of contaminants from long-term weapons testing (and other activities) at  
22 USAGKA, which have the potential to impact groundwater and lagoon and ocean systems.  
23 Descriptions of procedures for mitigating potential contamination of the groundwater should be  
24 more complete (see our previous letters of 19 March 2021 and 19 April 2021). We also have  
25 concerns regarding potential physical impacts of projectiles and shock waves to wildlife,  
26 including birds, turtles, fishes and corals. Detailed comments are listed in the attached sheets.

27  
28 **USAKA RESPONSE:** Comment noted.

29  
30 **US FISH AND WILDLIFE SERVICE (USFWS)**

31 **COMMENT:** Please see attached comment matrix sheets for specific comments and  
32 recommendations for the Draft NPA dated November 2021. Additionally, further consideration  
33 of compensatory mitigation for potential unintentional impacts on marine species and habitats  
34 should be considered.

35  
36 **USAKA RESPONSE:** Comment noted.

37  
38 **US FISH AND WILDLIFE SERVICE (USFWS)**

39 **COMMENT:** The Service supports continued development of the Draft Notice for Proposed

1 Activities (NPA-21-TBD) associated with development of a new DEP regarding Minuteman III  
2 Modification and Fuze Modernization Flight Tests/Ground Based Strategic Deterrent (GBSD)  
3 Flight Tests at USAGKA. Comments and recommendations in this letter and in the attached  
4 Comment Matrix Sheets should be considered for future drafts.

5  
6 **USAKA RESPONSE:** Comment noted.

7  
8 **US FISH AND WILDLIFE SERVICE (USFWS)**

9 **COMMENT:** Parentheses not closed "...documents (USAF 2004, 2006, 2013, 2020), ...".  
10

11 **USAKA RESPONSE:** Revised as recommended.  
12

13 **US FISH AND WILDLIFE SERVICE (USFWS)**

14 **COMMENT:** Note: It is indicated in several parts of the document that USAG-KA should  
15 continue to work with NMFS staff to conduct marine surveys throughout the atoll to develop  
16 more comprehensive understanding of distribution and abundance of species and habitats. While  
17 this is generally indicated in direct reference to comments made by NMFS on past documents,  
18 USFWS typically contributes to these surveys and would like our role in future surveys to be  
19 noted where appropriate.  
20

21 **USAKA RESPONSE:** Revised as recommended.  
22

23 **US FISH AND WILDLIFE SERVICE (USFWS)**

24 **COMMENT:** Note: NMFS recommends permits and training to perform necropsies and/or take  
25 tissue samples and to develop professional relations with qualified federal agencies and  
26 universities to capitalize on samples and information gained at USAG-KA. We recommend  
27 consulting USGS Honolulu Field Station for this purpose, as they possess requisite expertise.  
28

29 **USAKA RESPONSE:** Added USGS as recommended.  
30

31 **US FISH AND WILDLIFE SERVICE (USFWS)**

32 **COMMENT:** Note: It is indicated here that water used to dampen contaminated dust could  
33 reach the lagoon/sea, but on page 21 lines 1-3, it is said that waters will not be allowed to flow to  
34 the lagoon/ocean. Please provide clarity on the means of controlling the flow of this water and  
35 what conditions would determine whether or not it reaches natural basins, and how this will be  
36 contained/controlled. Additionally, please provide further explanation of how these contaminants  
37 are expected to cumulate in groundwaters. If this is not expected, why? How will this be  
38 prevented considering consistent deposit of contaminants over the long-term?

1 Are means for removal of water contaminants planned for should they occur at levels unsafe to  
2 wildlife or habitats?

3  
4 **USAKA RESPONSE:** Additional text added.

5  
6 **US FISH AND WILDLIFE SERVICE (USFWS)**

7 **COMMENT:** Frequent monitoring of groundwater will be essential both 1) after any ground  
8 impacts and also 2) regularly due to unknown time of accumulation, retention, solubility and  
9 dispersal of contaminants in soil and water over the years. This is only partially addressed in the  
10 BA (pg. 20, last point under “Hazardous Materials Measures” and in the last paragraph on pg.  
11 35). It should be included in the NPA.

12  
13 **USAKA RESPONSE:** The following text from the GBSD EA/OEA was added to Section 5.2,  
14 “Following a land-impact test, DAF and USAG-KA would collect soil and groundwater samples  
15 at various locations around the impact site and test the samples for beryllium, depleted uranium,  
16 and other metals. Testing results that exceed UES criteria would require a soil investigation as  
17 detailed in the UES and may require subsequent soil removal or other remediation.”

18  
19 **US FISH AND WILDLIFE SERVICE (USFWS)**

20 **COMMENT:** Construction of a berm would have a limited positive effect on ejecta because of  
21 the arc trajectory with many fragments going over the berm. Berm could affect turtle nesting at  
22 upper boundary of beach.

23  
24 **USAKA RESPONSE:** This was a NMFS suggestion, there are no plans to do this for testing.

25  
26 **US FISH AND WILDLIFE SERVICE (USFWS)**

27 **COMMENT:** Mark all Black-naped tern (BNTE) nests found with flagged stakes 3 feet away  
28 from nest to prevent inadvertent damage. Actual direction away from nest is not important as  
29 long as the direction is consistent for all nests, because the nests are cryptic.

30  
31 **USAKA RESPONSE:** Revised as recommended.

32  
33 **US FISH AND WILDLIFE SERVICE (USFWS)**

34 **COMMENT:** For injured wildlife, contact should be made with Hawaii Wildlife Center, Kapaa  
35 HI 96755 808-844-5000. Director Linda Elliott.

36  
37 **USAKA RESPONSE:** Revised as recommended.

1 **US FISH AND WILDLIFE SERVICE (USFWS)**

2 **COMMENT:** Sound of 240 dB is lethal. Sound pressure reduction occurs with a 6 dB reduction  
3 with a doubling of distance (inverse square law) Any animal within 200 meters will be subjected  
4 to 200+ dB which is still lethal. This means ALL birds in the short grass area surrounding the  
5 helipad will be killed and many black terns nesting in the littoral forest will be killed or  
6 permanently injured. All great-crested terns roosting on offshore orange balls will be killed.

7  
8 **USAKA RESPONSE:** Based on bird surveys during past missile testing events, no bird  
9 mortality was observed, and bird activity returned to normal after the test.

10 Citation: Foster and Work. 2011. U.S. Army at Kwajalein Atoll trip Report for Advanced  
11 Hypersonic Weapons Demonstration Test. U.S. Fish and Wildlife Service, Pacific Islands Office  
12 and U.S. Geological Survey. November 14-18, 2011.

13  
14 **US FISH AND WILDLIFE SERVICE (USFWS)**

15 **COMMENT:** Same comment as #[28]: mark nests of BNTE.

16  
17 **USAKA RESPONSE:** Revised as recommended.

18  
19 **AMENTUM ENVIRONMENTAL COMMENT:** First bullet incorrectly provides the current  
20 version of the Eniwetak Conservation Area Management Plan which was revised in August  
21 2017. Recommend updating it to reflect current version.

22  
23 **USAKA RESPONSE:** Request a copy of that document be sent to KFS, LLC for Administrative  
24 Record. Please email a PDF to [mccartyh@kfs-llc.com](mailto:mccartyh@kfs-llc.com).

25  
26 **AMENTUM ENVIRONMENTAL COMMENT:** 9th bullet refers to the USAKA 2006,  
27 Historic Preservation Plan. The current HPP was revised and issued in July 2020. Recommend  
28 updating to reflect current revision.

29  
30 **USAKA RESPONSE:** Request a copy of that document be sent to KFS, LLC for Administrative  
31 Record. Please email a PDF to [mccartyh@kfs-llc.com](mailto:mccartyh@kfs-llc.com).

32  
33 **AMENTUM ENVIRONMENTAL COMMENT:** 10th bullet refers to an outdated Dredging  
34 and Filling DEP. Recommend revising it to refer to the existing Dredge and Fill DEP-16-001.0  
35 which became effective on 22 December 2017.

36  
37 **USAKA RESPONSE:** Request a copy of that document be sent to KFS, LLC for Administrative  
38 Record. Please email a PDF to [mccartyh@kfs-llc.com](mailto:mccartyh@kfs-llc.com).

1  
2 **AMENTUM ENVIRONMENTAL COMMENT:** This sentence references the outdated ECA  
3 Management Plan. Recommend referring to the revised plan as referenced in the first comment.  
4

5 **USAKA RESPONSE:** Requested changes made.  
6

7 **AMENTUM ENVIRONMENTAL COMMENT:** It is important to note that rats were not  
8 found at the ECA and thus, there have been no activities to eradicate rats at the ECA. The focus  
9 then turned to the control of ants at the ECA instead per the current ECA Management Plan.  
10

11 **USAKA RESPONSE:** This measure was removed from the NPA.  
12

13 **AMENTUM ENVIRONMENTAL COMMENT:** Please revise to reflect the current Dredge  
14 and Fill DEP in effect (DEP-16-001.0). It is also important to note that the Dredge and Fill  
15 Project Description Sheet 2 may be required that includes USAG-KA Environmental Approval  
16 and a 30-day review by the UES Agencies. The paragraph assumes the dredge or fill activity  
17 would require a Project Description Sheet 1 (less than 25 cubic yards of movement and no  
18 special conditions). Recommend revising to reflect possible options.  
19

20 **USAKA RESPONSE:** Requested changes made.  
21

22 **AMENTUM ENVIRONMENTAL COMMENT:** Section indicates that water used to  
23 minimize dust after impact would be directed toward the water catchment area. Where is the  
24 water catchment area on Illeginni? Wasn't aware there was one.  
25

26 **USAKA RESPONSE:** Explanatory text added. See Comment #25.  
27

28 **AMENTUM ENVIRONMENTAL COMMENT:** This sections references UES Section 3-  
29 5.5(a)(3) which doesn't exist. Please correct the reference.  
30

31 **USAKA RESPONSE:** Revised text.  
32

33 **AMENTUM ENVIRONMENTAL COMMENT:** Please remove the reference to the  
34 Kwajalein Range Services Newslin since it no longer exists.  
35

36 **USAKA RESPONSE:** Requested changes made.  
37

1 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

2 **COMMENT:** Spell-out acronym at first occurrence (apparently reversed with line 37). In  
3 addition, the United States Air Force is also represented by its more common acronym USAF in  
4 other parts of the document. Is there a reason for using both DAF and USAF ?

5  
6 **USAKA RESPONSE:** Edited first use of DAF. DAF is the newer term for the combined Air  
7 Force and Space Force. Because the Air Force and Global Strike Command and Space Launch  
8 Delta 30 of the United States Space Force prepared the EA/OEA, DAF is used for the GBSD  
9 Test Program. Some programs and various agencies may still use USAF.

10  
11 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

12 **COMMENT:** Spell-out acronym at first occurrence (apparently reversed with line 34).

13  
14 **USAKA RESPONSE:** Requested changes made.

15  
16 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

17 **COMMENT:** Specify whether USAKA or SMDC/RTS is not meant rather than USAG-KA.  
18 The unclear use of USAG- KA appears in various parts of this document.

19  
20 **USAKA RESPONSE:** See comment #1.

21  
22 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

23 **COMMENT:** Specify whether USAKA or SMDC/RTS is not meant rather than USAG-KA.  
24 The unclear use of USAG- KA appears in various parts of this document.

25  
26 **USAKA RESPONSE:** See comment #1.

27  
28 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

29 **COMMENT:** Recommend adding “in accordance with Section 3.6 of the UES.

30  
31 **USAKA RESPONSE:** Requested changes made.

32  
33 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

34 **COMMENT:** Specify whether USAKA or SMDC/RTS is not meant rather than USAG-KA.  
35 The unclear use of USAG- KA appears in various parts of this document.



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1 **USAKA RESPONSE:** See comment #1.

2  
3 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

4 **COMMENT:** Specify whether USAKA or SMDC/RTS is not meant rather than USAG-KA.  
5 The unclear use of USAG- KA appears in various parts of this document.

6  
7 **USAKA RESPONSE:** See comment #1.

8  
9 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

10 **COMMENT:** Specify whether USAKA or SMDC/RTS is not meant rather than USAG-KA.  
11 The unclear use of USAG- KA appears in various parts of this document.

12  
13 **USAKA RESPONSE:** See comment #1.

14  
15 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

16 **COMMENT:** Suggest rewriting “directly south of” as “in a southern direction from”.

17  
18 **USAKA RESPONSE:** See Figure 3.

19  
20 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

21 **COMMENT:** Recommend adding or referring to a list of the hazardous materials contained in  
22 the RV besides Be and DU.

23  
24 **USAKA RESPONSE:** Information added to Section 3.4 and citation added to Section 3.1.

25  
26 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

27 **COMMENT:** Recommend adding “at Vandenberg Air Force Base (or VSBF) after “Emissions”  
28 or ‘Launches”.

29  
30 **USAKA RESPONSE:** Requested changes made.

31  
32 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

33 **COMMENT:** Recommend adding or referring to a list of the hazardous materials contained in  
34 the RV besides Be and DU.

1 **USAKA RESPONSE:** Cited Section 3.4 and added additional explanatory text to section 3.2.

2  
3 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KWAJALEIN**  
4 **ATOLL**

5 **COMMENT:** Move period from after “programs” to after “(USAFGSC 2015) on line 15.

6  
7 **USAKA RESPONSE:** Revised as recommended.

8  
9 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

10 **COMMENT:** Move period from after “KMISS” to after “(USAFGSC 2015) on line 17.

11  
12 **USAKA RESPONSE:** Revised as recommended.

13  
14 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

15 **COMMENT:** Move period from after “moment” to after “(USAFGSC 2015).

16  
17 **USAKA RESPONSE:** This citation applies to the whole paragraph, not just the sentence.

18  
19 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

20 **COMMENT:** Re-write “...sea turtles. However,” as “sea turtles; however,”

21  
22 **USAKA RESPONSE:** Revised as recommended.

23  
24 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

25 **COMMENT:** Re-write “the impact” as “the impacts”.

26  
27 **USAKA RESPONSE:** Revised as recommended.

28  
29 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

30 **COMMENT:** Shouldn’t this statement belong in the “Environmental controls” section?

31  
32 **USAKA RESPONSE:** Revised as recommended.

33  
34 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

35 **COMMENT:** Suggest re-writing “Only small amounts of hazardous wastes are expected...and

1 will be managed...” as “These occurrences are unlikely and rare, only small amounts of  
2 hazardous wastes, if any, are expected...and would be managed...”

3  
4 **USAKA RESPONSE:** Recommended changes made.

5  
6 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

7 **COMMENT:** Shouldn’t the statement starting with “Any potentially hazardous wastes...”  
8 belong in the “Environmental controls” section?

9  
10 **USAKA RESPONSE:** Recommended changes made.

11  
12 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

13 **COMMENT:** Recommend adding or referring to a list of the hazardous materials contained in  
14 the RV.

15  
16 **USAKA RESPONSE:** Revised as recommended. See comment #'s 50, 52.

17  
18 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

19 **COMMENT:** Recommend adding a statement explaining how or why “no impacts will be  
20 expected.

21  
22 **USAKA RESPONSE:** Revised as recommended.

23  
24 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

25 **COMMENT:** Last statement, refer to section 5.1 for the possible use of water as dust control.

26  
27 **USAKA RESPONSE:** Revised as recommended.

28  
29 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

30 **COMMENT:** Recommend adding “or promptly cleaned-up” after “prevented”.

31  
32 **USAKA RESPONSE:** Recommended changes made.

33  
34 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

35 **COMMENT:** Recommend adding “temporarily” before “stabilized”.

1  
2 **USAKA RESPONSE:** Recommended changes made.  
3  
4 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**  
5 **COMMENT:** Recommend re-writing “testing” as “testing events” or “tests”.  
6  
7 **USAKA RESPONSE:** Revised as recommended.  
8  
9 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**  
10 **COMMENT:** Recommend re-writing “vicinity from” as “areas affected by”.  
11  
12 **USAKA RESPONSE:** Recommended changes made.  
13  
14 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**  
15 **COMMENT:** Recommend adding “or minimize” after “avoid”.  
16  
17 **USAKA RESPONSE:** Revised as recommended.  
18  
19 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**  
20 **COMMENT:** Recommend addressing the potential effect/impacts on coral formations between  
21 10-ft and 20-ft depth.  
22  
23 **USAKA RESPONSE:** These potential impacts at Illeginni Islet are addressed in the Endangered  
24 Species and Wildlife Resources Section (5.3) on pages 21 and 22.  
25  
26 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**  
27 **COMMENT:** Recommend adding “implement and” before “comply”.  
28  
29 **USAKA RESPONSE:** Revised as recommended.  
30  
31 **U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**  
32 **COMMENT:** Specify whether USAKA or SMDC/RTS is not meant rather than USAG-KA.  
33 The unclear use of USAG- KA appears in various parts of this document.  
34  
35 **USAKA RESPONSE:** USAG-KA is intended here as these are actions the Garrison would take.

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**U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

**COMMENT:** Recommend adding “UES coordination and” before “consultation”.

**USAKA RESPONSE:** Revised as recommended.

**U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

**COMMENT:** Specify whether any other combustion residual could be present.

**USAKA RESPONSE:** Specified and recommended.

**U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

**COMMENT:** Specify in what circumstances would this apply. For example, in the case of an air burst over sea surface, the RV would be disintegrated before splashing into the water surface.

**USAKA RESPONSE:** We are not able to specify in this document, what would happen to the RV in this instance.

**U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

**COMMENT:** Suggest rewriting “substantially” as “considerably”.

**USAKA RESPONSE:** Revised as recommended.

**U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

**COMMENT:** Specify whether USAKA or SMDC/RTS is not meant rather than USAG-KA. The unclear use of USAG- KA appears in various parts of this document.

**USAKA RESPONSE:** See comment #1.

**U.S. ARMY ENVIRONMENTAL COMMAND, FORWARD ESM – USAG-KA**

**COMMENT:** Verify/confirm the validity of “Kwajalein Range Service Newslne”.

**USAKA RESPONSE:** See Comment #40.

**US ENVIRONMENTAL PROTECTION AGENCY, REGION 9 (USEPA)**

**COMMENT:** Overarching message: Need for a program-level assessment for Kwajalein Atoll

1 and Illeginni USEPA R9 has commented previously on the need for a programmatic impact  
2 assessment approach with regard to DoD flight test actions targeting USAG-KA and Illeginni  
3 Islet. A joint programmatic impact assessment (NEPA document and/or DEP) would be a good  
4 option for both the resource agencies and DoD. A programmatic evaluation would identify a  
5 clear and comprehensive baseline of existing conditions which would not have to be repeated in  
6 each project-specific document and contain an assessment of cumulative impacts to Illeginni  
7 Islet and nearby waters. This would remedy the piecemeal approach that project-specific NEPA  
8 EAs and DEPS have taken, avoid duplicative paperwork, and going forward, allow for simpler  
9 and more focused project-specific analyses, tiered to the programmatic impact assessment.  
10 Despite perceived logistical difficulties inherent with having different lead Department of  
11 Defense agencies, time schedules, and funding sources, a program solely addressing Illeginni  
12 and nearby impacts could be implemented by a single entity coordinated through the U.S. Army  
13 Space and Missile Defense Command.

14  
15 • USEPA R9 strongly recommends that coordination begin to develop a Kwajalein/Illeginni Islet  
16 sustainability program to promote sustainability for both environmental resources and for future  
17 use of the DoD asset, consistent with DoD’s sustainable ranges initiative  
18 (<https://www.denix.osd.mil/sri/index.html>). The program could be referenced in relevant future  
19 NEPA documents to help support future FONSI and SEPs, and offer a coordinated tracking  
20 vehicle for environmental sampling and testing results, modeling efforts, associated studies, and  
21 conservation measures identified in multiple biological opinions.

22  
23 **USAKA RESPONSE:** SMDC and NMFS are working towards developing and implementing a  
24 programmatic consultation approach that would batch multiple RTS tests over a period of time  
25 with similar impact areas. The Programmatic Biological Assessment (PBA) for mission activities  
26 at USAKA will evaluate effects cumulatively resulting in satisfactory avoidance and  
27 minimization of risks of protected species. The intent of the PBA is to streamline the Endangered  
28 Species Act (ESA) and UES consultation process and reduce administrative burden. Only actions  
29 that result in "may affect, not likely to adversely affect" determinations will be covered by the  
30 PBA. Missions that do not meet the specific description and criteria of the action, including all  
31 applicable conservation measures as written in the PBA, will require separate consultation with  
32 NOAA. Concurrently, USAG-KA is evaluating the development of a programmatic consultation  
33 approach for routine Garrison activities to include marine transportation associated with RTS  
34 tests.

35  
36 **US ENVIRONMENTAL PROTECTION AGENCY, REGION 9 (USEPA)**

37 **COMMENT:** Confusing and potentially contradictory info regarding how many landings/targets  
38 for Illeginni Islet are possible. Because the document explicitly states that it is the landings on  
39 Illeginni that are prompting the creation of this new DEP (p. 3 – “Because of the proposed  
40 Ground-Based Strategic Deterrent (GBSD) land impacts on Illeginni, a new DEP is being  
41 prepared thus requiring this NPA and subsequent companion DEP for the MMIII/GBSD Flight  
42 Tests at USAG-KA”), it should be very clear how many landings and RVs will impact it.

43 • USEPA R9 recommends modifying Table 1 to include the number of targets and RVs that  
44 could impact Illeginni Islet.



1  
2 **USAKA RESPONSE:** The last paragraph of Page 2 and Page 7 (third full paragraph) of the  
3 NPA states the number of RV impacts on Illeginni Islet: “one to three test RVs in total are  
4 planned to impact land on the western end of Illeginni Islet.” Table 1 cannot be modified to add  
5 the number of tests involving RV impact at Illeginni Islet as the FY of the test(s) involving  
6 Illeginni Islet is not available at this time.

7  
8 **US ENVIRONMENTAL PROTECTION AGENCY, REGION 9 (USEPA)**

9 **COMMENT:** The DEP states that “small quantities of heavy metals including Be, cadmium,  
10 chromium, lead, DU, and asbestos” are released upon impact of the RV’s and that residual  
11 concentration of Be and DU have been detected in the soils on the western end of Illeginni Islet.  
12 It states that these levels are within UES compliance levels” without identifying what these  
13 levels are. In addition to contaminants from future tests, existing contamination on Illeginni, as  
14 identified in the February 2021 Environmental Assessment, includes beryllium, tungsten, and  
15 depleted uranium that would be disturbed at the impact sites, and this impact is not identified in  
16 the DEP, nor is the known history of tungsten contamination in soil and groundwater.

17  
18 • USEPA R9 recommends including a compiled table of results from soil testing, with  
19 compliance levels identified, in the DEP.

20  
21 **USAKA RESPONSE:** The DEP is meant to document mitigation measures for the GBSD flight  
22 tests. Past history of the Illeginni soil sampling is described in detail in the GBSD EA/OEA;  
23 however, because it is not specific to the GBSD program, it does not belong in the GBSD DEP.  
24 In response to the EPA’s request, the requested table was added to the NPA (which is included as  
25 an Appendix to the DEP) in Section 4.4, page 20.

26  
27 **US ENVIRONMENTAL PROTECTION AGENCY, REGION 9 (USEPA)**

28 **COMMENT:** It is not clear what actions will be taken to monitor the levels of contamination  
29 over the course of the actions through 2029 for the GBSD program nor how the results will be  
30 reported. The Environmental Assessment for the GBSD indicated in Section 4.2.4.1.1.1  
31 Mitigation Measures, Flight Test Mitigation Measures – USAG-KA that “The following  
32 measures would be implemented as part of the Proposed Action and would be included in the  
33 Document of Environmental Protection for GBSD Test Program activities at Kwajalein Atoll”  
34 and included: “Following a land-impact test, the USAF and USAG-KA would collect soil and  
35 groundwater samples at various locations around the impact site and test the samples for  
36 beryllium, depleted uranium, and other metals. Testing results that exceed UES criteria would  
37 require a soil investigation as detailed in the UES and may require subsequent soil removal or  
38 other remediation.” The mitigation measure identified above is not identified in this NPA for the  
39 DEP. It is not clear whether the other mitigation measures listed in Section 4.2.4.1.1.1 are  
40 included in the DEP.

41  
42 • USEPA R9 recommends including all mitigation measures identified in pages 4-94 through 4-  
43 98 of the Ground Based Strategic Deterrent Test Program, Environmental Assessment / Overseas

1 Environmental Assessment, February 2021, in the DEP as stated would occur.

2  
3 **USAKA RESPONSE:** The DEP states in Milestone Schedule item number 20, “Test soil  
4 samples to ensure that the concentrations of Be, U, and other metals do not exceed established  
5 UES standards. (Section 1.1.1, m) If standards are exceeded, follow requirements in Sections  
6 1.1.1, m, & n.” The Notice of Proposed Activity (NPA) summarizes the actions of the GBSD  
7 program; however, mitigation measures are focused on in the Document of Environmental  
8 Protection (DEP). The requested information is not required in the NPA; however, it is required  
9 in the DEP, and has been met with DEP Sections 1.1 l, m, and n. The DEP includes all mitigation  
10 measures identified in the EA/OEA (June 2021).

11  
12 **US ENVIRONMENTAL PROTECTION AGENCY, REGION 9 (USEPA)**

13 **COMMENT:** • USEPA R9 recommends discussion of impacts from disturbing existing  
14 contamination on Illeginni from the GBSD test weapon impacts and ejecta and its potential to  
15 add to the contamination.

16  
17 **USAKA RESPONSE:** This information is provided in the GBSD EA/OEA, not the NPA. A  
18 reference to the GBSD EA/OEA was added to the NPA in sections 3.2 and 3.4.

19  
20 **US ENVIRONMENTAL PROTECTION AGENCY, REGION 9 (USEPA)**

21 **COMMENT:** • USEPA R9 recommends the DEP identify the soil testing, committed to in the  
22 EA, that will occur after each impact on Illeginni Islet for the GBSD program and how these  
23 results will be communicated. The DEP should clearly identify the process whereby soils will be  
24 prevented from accumulating significant levels of pollutants.

25  
26 **USAKA RESPONSE:** See DEP Milestone Schedule Item number 20; DEP Section 1.1 l, m, n.

27  
28 **US ENVIRONMENTAL PROTECTION AGENCY, REGION 9 (USEPA)**

29 **COMMENT:** The NPA is confusing with regard to identifying point source versus nonpoint  
30 sources. It states that there would be no point-source discharges (p. 35), but then states that  
31 stormwater is a point source (p. 36). Also, page 19 states that “excavated material would be  
32 screened, and the collected RV debris washed before packaging for shipment back to Kwajalein  
33 Islet and the United States.” It also states that water for dust control would be directed into  
34 catchments and allowed to evaporate (p. 31), without acknowledging that this water could be  
35 contaminated.

36  
37 • USEPA R9 recommends clarifying the point and nonpoint source terminology in the DEP; and  
38 the stormwater discharges that could occur from the actions and how pollutants in stormwater  
39 will be prevented from entering the lagoon. Describe the washing process and where the wash  
40 water would be discharged, and discuss the fate of contaminants in dust control evaporation  
41 residue.

1 **USAKA RESPONSE:** As described in Section 7.0 of the NPA, there are no point-source  
 2 discharges associated with the MMIII/GBSD activities. Stormwater is not discussed in the  
 3 GBSD NPA. There are no stormwater point-source discharges associated with MMIII/GBSD  
 4 activities. Regarding “washing”, see DEP Section 1.1 g: “Prior to returning the test support  
 5 equipment and materials to the US, the equipment shall be washed, and a certified Pest Control  
 6 Technician shall inspect the equipment again to ensure that it does not contain any insects,  
 7 animals, plants, or seeds that might have been picked up during fielding.” The minor amount of  
 8 liquid used would be used to remove insects, animals, plants or seeds, and would not constitute a  
 9 point-source discharge. The potential for this action to introduce negligible levels of  
 10 contaminants has been analyzed throughout the EA/OEA. Sentence regarding freshwater for dust  
 11 control added to NPA Section 1.2, page 9. The discussion of potential contaminants in dust  
 12 control and evaporation residue are in NPA Sections 4.1, 4.2, 5.1, and 5.2.

13  
 14 **US ENVIRONMENTAL PROTECTION AGENCY, REGION 9 (USEPA)**

15 **COMMENT:** No evaluation of impacts to environmental justice populations is included in the  
 16 NPA. While we understand no unauthorized personnel will be present at Illeginni, as previously  
 17 commented, it is possible that an exposure route to nearby populations at Ebeye and elsewhere  
 18 could exist via subsistence fishing.

19  
 20 • USEPA R9 recommends discussion of potential impacts to subsistence fishers at the atoll be  
 21 included in the DEP. Indicate whether additional fish studies are planned. We recommend  
 22 determining whether lead or tungsten is present in fish that have Illeginni Islet waters in their  
 23 range and that are sought by the local fishing population. We note that the fish study finalized in  
 24 2017 did not appear to test for lead or tungsten and we recommend ascertaining whether these  
 25 contaminants are accumulating in fish tissue and organs consumed by the local population.

26  
 27 **USAKA RESPONSE:** The impacts of the proposed action on Environmental Justice, including  
 28 fish and subsistence fishing, were evaluated in the GBSD EA/OEA. See GBSD EA/OEA  
 29 Appendix G (Section G.1.1) for a discussion of EO 12898 – Federal Actions to Address  
 30 Environmental Justice in Minority Populations and Low-Income Populations (including  
 31 Subsistence Fishing). The EA/OEA identified no human health or environmental effects by the  
 32 Proposed Action that would result in disproportionately high or adverse effect on minority or  
 33 low-income populations, including on subsistence fishing. USEPA R9’s recommendation for  
 34 future fish studies is noted.

35  
 36 **US ENVIRONMENTAL PROTECTION AGENCY, REGION 9 (USEPA)**

37 **COMMENT:** The NPA does not sufficiently disclose GHG and other air emissions and does not  
 38 explain its conclusions. Additionally, the statement that GHG emissions would be temporary  
 39 does not recognize that their presence in the atmosphere is not temporary in any human  
 40 timeframe.

41  
 42 • USEPA R9 recommends adding an estimate of CO<sub>2</sub>eq emissions to Table 2 (Table 2 currently  
 43 states “N/A”, which is not correct) and add emission estimates for Tn, Be and U. In the statement

1 on page 29 that minor quantities of emissions would be within the UES air quality standards,  
2 provide the standard quantity for those pollutants and the basis for this determination.  
3

4 **USAKA RESPONSE:** 1. The “N/A” stated in Table 2 for CO<sub>2</sub>e should read “Unknown”. Due  
5 to the age of the Minuteman Launch Vehicle Program at Vandenberg Space Force Base (1965)  
6 and the MMIII Launch Vehicle (1970s), GHGs emissions were and are not tracked. From  
7 Vandenberg Space Force Base the actual vehicle launch is considered a “Mobile Source” and the  
8 local permitting authority does not require the reporting of CO<sub>2</sub>e for mobile source.

9 2. The estimated emissions for tungsten (W), Be and U in air as it relates to the MMIII and  
10 GBSD programs in the RMI are unknown. A sampling and analysis of materials from Illeginni  
11 were done in 2017 by Lawrence Livermore National Laboratory and a number of air monitoring  
12 filters were also collected as part of this exercise. These data will be reported as they become  
13 available.

14  
15 **US ENVIRONMENTAL PROTECTION AGENCY, REGION 9 (USEPA)**

16 **COMMENT:** Mitigation and Conservation Measures from Biological Opinions  
17 For Section 1.3 - Mitigation and Conservation Measures – the listing of actions under the  
18 different BO’s is not very helpful since its not apparent which, if any, have been implemented.  
19

20 • USEPA R9 recommends a table be created that includes all the recommendations in all the  
21 BO’s and that a column indicate for each one whether it has been implemented, the estimated  
22 date for completion, or whether there are no plans for implementation. This table should be  
23 updated for each new DEP and BO for these actions. See also comment above regarding need for  
24 program-level assessment.  
25

26 **USAKA RESPONSE:** A schedule/checklist of requirements has been added to the DEP  
27 (Milestones Schedule Pages vii-ix) to facilitate DAF compliance with BO and UES  
28 requirements. The PDT does not have a complete list of which measures have been implemented  
29 for MMIII in order to include a column in the table indicating if the measures have been  
30 implemented. Additionally, any measures specified in the GBSD BO would not have been  
31 implemented yet. The NPA and DEP are focused on future implementation of mitigation and  
32 conservation measures for the Proposed Action.  
33

34 **US ENVIRONMENTAL PROTECTION AGENCY, REGION 9 (USEPA)**

35 **COMMENT:** Ocean and Reef: Page 18 states that “a Landing Craft Utility (LCU) vessel, will  
36 be temporarily placed in ocean waters no less than 10 ft (3 m) deep” and that no anchors will be  
37 used to maintain raft positions. The NPA does not indicate whether the LCU itself will use  
38 anchors and if so, the impacts that would be expected for the totality of the tests.  
39

40 **USAKA RESPONSE:** No anchoring of the LCU is expected for the Proposed Action. Revised  
41 the NPA to clarify.  
42